



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION IX LABORATORY  
1337 S. 46TH STREET  
BLDG. 201  
RICHMOND, CA 94804-4698**

MAR 2 2001

MEMORANDUM

SUBJECT: Case R00S16, SDG 01026A  
Results for Perchlorate and Total Dissolved Solids Analysis

FROM: *B. Bettencourt*  
Brenda Bettencourt, Director  
EPA Region 9 Laboratory (PMD-2)

TO: Kevin Mayer, Remedial Project Manager  
Northern California Cleanup Section (SFD-7-2)

Attached are the report narrative and results spreadsheet from analysis of samples from the Colorado River Perchlorate Study. These data have been reviewed in accordance with EPA Region 9 Laboratory policy. Summary information for the data included in this report is as follows:

SITE/PROJECT:	Colorado River Perchlorate Study
CASE:	R00S16
LABORATORY:	U. S. EPA Region 9 Laboratory
SAMPLE DELIVERY GROUP(s):	01026A
ANALYSIS:	Perchlorate (EPA method 314.0) Total Dissolved Solids (EPA method 160.1)

A full documentation package for these data, including raw data and sample custody documentation, has been prepared and is filed at the Region 9 Laboratory. Please contact Vance Fong of the Quality Assurance Program (PMD-3) to request review and/or validation of the data.

If you have any questions please contact Rich Bauer at (510) 412-2312, or Ken Hendrix at (510) 412-2321.

ATTACHMENT: Analytical Reports

**USEPA REGION 9 LABORATORY**  
**REPORT NARRATIVE**

**CASE NUMBER:** R00S16  
**SAMPLE DELIVERY GROUP:** 01026A  
**PROGRAM:** SUPERFUND  
**DOCUMENT CONTROL #:** ESTW-9B-4169  
**DATE:** 02/23/01  
**ANALYSIS:** PERCHLORATE AND TOTAL DISSOLVED SOLIDS  
  
**SAMPLE NUMBERS:**

<b><u>SAMPLE ID</u></b>	<b><u>LABORATORY SAMPLE ID</u></b>
L. V. Wash nr Boulder City, NV	AB29885
L. V. Wash nr Boulder City, NV	AB29886
L. V. Wash nr Henderson, NV	AB29887
L. V. Wash nr Henderson, NV	AB29888
Colorado River blw Hoover Dam	AB29899
Colorado River blw Hoover Dam	AB29890

**GENERAL COMMENTS**

Six water samples were received from the Colorado River Perchlorate Study Superfund project on 01/26/01.

The requested analyses were perchlorate by Region 9 Laboratory SOP #531 and total dissolved solids by Region 9 Laboratory SOP #461 (EPA Method 160.1). All perchlorate samples, with the exception of sample AB29890, were analyzed outside the recommended 28-day holding time. All TDS samples were analyzed outside the required 7-day holding time.

**SAMPLE RECEIPT AND PRESERVATION**

No shipping or preservation issues were encountered.

**QA/QC SUMMARY**

No analytes were detected in the LRBs associated with this SDG.

No duplicate analysis was performed for TDS due to lack of sample.

The RPD between the sample and duplicate for perchlorate was less than or equal to the 20% QC limit.

No LFM or LFM duplicate was analyzed for perchlorate; the QC sample required a 10-fold dilution.

The TDS LFB recoveries were within the 85-115% QC limits. The perchlorate LFB recovery was within the 90-110% QC limits.

Questions concerning the data can be answered by Patrick Hirata at (510) 412-2354.

## **GLOSSARY**

### **Laboratory Reagent Blanks (LRB)**

A laboratory reagent blank is laboratory reagent water or baked sand with all reagents added and carried through the same sample preparation and analytical procedures as the field samples. The laboratory reagent blank is used to determine the level of contamination introduced by the laboratory during analysis.

### **Laboratory Fortified Matrix (LFM), Laboratory Fortified Matrix Duplicate (LFMD) and Laboratory Duplicate (LD) Analysis**

The laboratory fortified matrix spike sample and laboratory duplicate analyses provide information about the effect of the sample matrix on sample preparation and measurement. Poor percent recovery (%R) results and large relative percent difference (RPD) between duplicates may indicate inconsistent laboratory technique, sample nonhomogeneity in soils, or matrix effects which may interfere with analysis.

### **Laboratory Fortified Blank (LFB) Analysis**

The laboratory fortified blank is laboratory reagent water or baked sand with a known concentration of the analytes of interest added by the laboratory with all reagents added and carried through the same sample preparation and analytical procedures as the field samples. Poor percent recovery (%R) results may indicate inconsistent laboratory technique.